

ANALOGIA NATURAE:
WHAT DOES INANIMATE MATTER
CONTRIBUTE
TO THE MEANING OF LIFE?

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“Only an analogy of nature that has room
for the inanimate character of matter will
be able to accommodate the abiding
finitude of the human being.”

I. Schelling and the challenge of mechanism

The developments in the science of nature that crested in the seventeenth century are commonly referred to as a “revolution” because they involved not just a set of discoveries or a new theory, but a fundamental change in the conception of nature simply, even if the implications of the change have taken centuries fully to unfold.¹ One aspect of this transformation is what has been called the “democritization” of the natural world,² wherein the classical hierarchy of being was flattened out so that all things in the cosmos,

¹And, to be sure, the “revolution” began several centuries before Galileo. As Anneliese Maier has shown, the emergence of “physicalist thinking” that separated physics, not only from Aristotle, but from philosophy and theology more generally, reached a first crescendo among the Parisian nominalists in the fourteenth century: *Die Vorläufer Galileis im 14. Jahrhundert*, vol. 1 of *Studien zur Naturphilosophie der Spätscholastik* (Rome: Edizioni di Storia e Letteratura, 1949), 1–2.

²Hans-Dieter Mutschler, *Spekulative und empirische Physik* (Stuttgart: W. Kohlhammer, 1990), 22–23.

no matter how base or how celestial, were seen to be composed of essentially the same “stuff” and were all equal under the law of nature, eventually codified in Newton’s mechanics. The revolution occurred in waves, each laying low in succession one level of the classical triad of being-life-intellect, which Plato introduced in the *Sophist*. Initially, while Galileo sought to provide a better account of projectile motion, he established principles that presumed to describe the behavior of all being precisely insofar as it partook of motion—that is, insofar as it is physical at all.³ Darwin’s theory was a revolution arguably not because of the claim that the forms of natural things change over time but more fundamentally because his explanation of the manner of the change extended mechanism into biology.⁴ It thus recast the very meaning of life, suggesting that life does not have a reality in itself but is rather an epiphenomenon of the mechanistic interaction of material parts. If Darwin did not draw out all the implications of his ideas, it did not take long for others to do so. The third wave that has been occurring in our age, namely, the extension of mechanism into the specifically human spheres of existence, for example in “sociobiology” and evolutionary psychology, is rarely called a revolution, perhaps because the first two waves have left so little to overturn. Ultimately mechanistic interpretations of love, faith, reason, and so forth, have become almost a matter of course.

The fact that this represents a crisis need not be belabored here; the interest it has generated already bears witness to the urgency of the challenge mechanism poses to life, and what is at stake in it. But we are not the first to reflect on this challenge, and our own reflections can be aided by a consideration of the fate of

³Henri Bortoft explains that Galileo’s theory of motion entailed a radically new way of seeing nature more generally: *The Wholeness of Nature: Goethe’s Way Toward a Science of Conscious Participation in Nature* (New York: Lindisfarne Books, 1996), 160. See the general presentation of Galileo’s concept of nature in E.A. Burt, *The Metaphysical Foundations of Modern Science* (New York: Anchor Books, 1954), 72–104.

⁴Christoph Cardinal Schönborn set off a maelstrom of controversy for having pointed out the distinction between the fact of evolution and the theory concerning its causal mechanism, saying that, while the Church has accepted evolution, she has never endorsed a blind mechanistic explanation for it. The ferociousness of the controversy suggests that the essence of the matter is indeed the mechanism, and thus the concept of nature (and the concept of being more generally), that lies behind it. See Schönborn’s original *New York Times* editorial published 7 July 2005.

other attempts. Especially instructive in this regard, I would suggest, is the philosophy of nature developed by F. W. J. von Schelling in the early nineteenth century, initially through some collaboration with his friend Hegel.⁵ Schelling anticipated in some ways the ramifications of the scientific revolution we just indicated. He believed that if a connection to life were removed altogether from matter even at its most rudimentary level, it would never be able to be reintroduced later, and that the loss of life in nature would in turn evacuate the meaning of human existence. For him, the problem is not materialism per se, but the supplanting of the ancient materialism that recognized vital properties in matter by the lifeless materialism of modern mechanism. Schelling describes the gradual encroachment of mechanism and its culmination in a kind of technological reconstruction of nature from top to bottom in his dialogue *Bruno* in the following way:

Since men agreed that, in the beginning, matter was dead, it was decided that death was the principle governing all things, and that life was just a derivative phenomenon. And after matter had succumbed to death, nothing remained but to banish the last witness to its vitality, that is, to transform light, the universal spirit of nature, the form of forms, into an equally corporeal entity, to divide it up mechanistically just like everything else. Now since life was extinguished in all the members and organs of the universe, since even the living manifestations that connect bodies to one another were reduced to lifeless motions, there now remained only the final and grandest task, namely, to bring nature, already dead in its innermost parts, back to life again, mechanistically.⁶

This was written in 1802. Rather presciently, Schelling thought that the reinterpretation of light that we have for example in Newton's optics would eventually entail a revolution in man's own self-

⁵Though it lasted only a year, Hegel and Schelling founded the *Critical Journal of Philosophy* in Jena in 1802, in which they published mostly their own pieces on the philosophy of nature.

⁶Schelling, *Bruno, or On the Natural and the Divine Principle of Things*, trans. Michael Vater (Albany: SUNY Press, 1984), 209–10. His argument in the *Bruno* is that, strictly speaking, materialism, intellectualism, realism, and idealism are not four different philosophies, but, properly understood, one absolute philosophy interpreted from four different angles. In this case, true materialism is not a study of the body as opposed to the soul, but includes within itself both body and soul, understood from the perspective of matter—which means that matter is essentially living.

understanding.⁷ To drive life out of matter, and so out of nature simply, is to render nature the fundamental opposite of freedom. In other words, in a mechanistic world freedom becomes wholly unnatural, an empty arbitrary spontaneity without substance, and so its products are nothing more than “superficial facts,” not expressions of a deeper meaning but events that have only external intelligibility. The implication is a dissolution of the universe, which has its symbolic expression in the fragmentation of the university: the “hard” sciences collapse into mechanistic materialism and the “soft” sciences collapse into historical positivism. Schelling described this twofold collapse with great pathos in the *Lectures on the Method of Academic Study* he delivered likewise in 1802.⁸

It seems to me that the gist of Schelling’s judgments resonate rather broadly with our experience of the contemporary world. To respond to the conception of nature that is presented by the leveling of being in mechanistic materialism requires a renewed reflection on the relation between inorganic and organic matter, and indeed on the relation between life and human being.⁹ Schelling’s response to the scientific revolution was to retrieve the ancient notion of the World Soul in a way that made sense of modern discoveries in the study of nature.¹⁰ He placed life at the center of his conception of the cosmos, and attempted to think through the structure and behavior of matter in relation to this center. Ultimately, he was led to reinterpret matter, not as inert stuff opposed to life, but rather as a lower degree of the

⁷Schelling presented Newton’s optics in his *Lectures on the Method of Academic Study* as the greatest proof of the possibility of a complete and internally consistent construction of false inferences that is grounded from top to bottom on experience and experiment: see F. J. W. Schelling, *Vorlesungen über die Methode des akademischen Studiums* (Stuttgart: Cotta, 1850), 270.

⁸Schelling’s aim in these lectures was to recover the central role of philosophy—defined as the science of the absolute—as a precondition for the integration of the disciplines. Each discipline can have life in itself only to the extent that it understands itself as a particular reflection of the whole.

⁹Iain Hamilton Grant helpfully observes that, if we have a dualism at the level of physics (between inorganic and organic matter), we will necessarily also have a dualism between nature and spirit. As he puts it, a “two-worlds” physics entails a “two-worlds” metaphysics. See his *Philosophies of Nature after Schelling* (New York: Continuum, 2006), 15. The key is to overcome the dualism without collapsing in turn into a monism.

¹⁰Schelling, *Von der Weltseele: Eine Hypothese der höhern Physik zur Erklärung des allgemeinen Organismus* (1798), ed. Jörg Jantzen (Stuttgart: Frommann-Holzboog, 2000).

living, a kind of ossification of vital activity.¹¹ As such, it possesses an inherent drive toward the dynamic complexity of life and ultimately of spirit. Schelling thus sought to reinstate a hierarchy of being that took full consideration of the developments in modern science, but reinterpreted them according to a view of the whole. This is what he and Hegel together in their early collaboration called “speculative physics.” But whatever scientific value Schelling’s ideas may still have—this is a matter of continuing controversy¹²—and however attractive his reversal of the revolution may seem, it is difficult to deny a basic criticism that has been made of his *Naturphilosophie*: Schelling overcomes modern mechanism’s tendency to reduce biology to physics only by reducing physics to biology.¹³ Even his supporters admit that the sea of life in his dynamic view of nature exposes no dry land for the “thingness” of things that it does not then flood again in the very next moment.¹⁴ The value Schelling gives to life he precisely takes away from

¹¹In the *Weltseele*, he claims that life is what is *essential* in things, and that “dead” matter is not dead in itself but merely “extinguished life”: *ibid.*, 190. In his *First Sketch (Erster Entwurf)*, vol. 7, 87), Schelling explains that matter is a particular degree of action. In his 1801 *Darstellung meines Systems*, he says that “dead matter” does not exist as such; it is simply matter insofar as it is not raised to the form of the existence of absolute identity (101–02).

¹²The main debate on this has occurred between Bernd-Olaf Küppers, *Natur als Organismus: Schellings frühe Naturphilosophie und ihre Bedeutung für die moderne Biologie* (Frankfurt: Klostermann, 1992) and Marie Heuser-Kessler, *Die Produktivität der Natur: Schellings Naturphilosophie und das neue Paradigma der Selbstorganisation in den Naturwissenschaften* (Berlin: Duncker und Humblot, 1986).

¹³See Küppers, 88. Certainly, this is a problem that Schelling sought vehemently to avoid, but arguably his general strategy to resist the higher reduction of nature to spirit, and so the real to the ideal, not by affirming the goodness of matter *per se*, but by absolutizing the *living* character of nature, continued to undercut his intention. It seems that the “positive philosophy” that Schelling developed toward the end of his life had some potential for recovering the specifically *material* dimension of the physical world as philosophically significant, but this philosophy occupied itself with religion and mythology rather than with natural science. His later discussions always included the philosophy of nature within the negative moment of reflection. I.H. Grant has argued that Schelling does not reduce the inorganic to the organic, but rather that all of the beings in the world are “regional expressions” of a fundamental opposition of immanent forces: Grant, “Introduction” to the translation of the preface to *On the World Soul, Collapse*, 6 (2010): 62. But even this qualification does not suffice for the analogy of nature we will be proposing here.

¹⁴See Heuser-Kessler, 101–04.

material being as such. What seems to be lacking in this rare attempt in modern philosophy to reflect on the meaning of life in the face of mechanistic science¹⁵ is a way to overcome separation without losing genuine, irreducible difference. In other words, Schelling's great—we might say “tragic”—experiment in the philosophy of nature reveals the need for a truly analogical conception of nature. This is what we will attempt to sketch out in a very rudimentary way in the following pages.

II. Nature conceived analogically

According to Aristotle, nature is an internal principle of motion and rest (τὰ μὲν γὰρ ὄντα πάντα φαίνεται ἔχοντα ἐν ἑαυτοῖς ἀρχὴν κινήσεως καὶ στάσεως).¹⁶ He derives this definition from a consideration of what appears to be common to the various things that are generally affirmed as existing “by nature,” namely, animals (and their parts), plants, and “the simple bodies [τὰ ἀπλᾶ τῶν σομάτων], such as earth, fire, air and water.” Now, it is clear in what sense animals and plants betray an internal principle of motion, and so qualify as natural. But there are a couple of peculiarities about this list with respect to the definition Aristotle offers of nature that call our reflection back to reconsider the meaning of that definition. On the one hand, while Aristotle very clearly includes human beings among the things of nature as a species of animal, that which is highest in man and unique to him in the natural world, namely, intellect (specifically as νοῦς, and ultimately as νοῦς ποιητικός) is not exactly a principle of motion and rest.¹⁷ Indeed, as is well known there have been centuries of controversy over the question of the extent to which the intellect is “in” the natural world at all. On the other hand, although Aristotle insists that the elements are natural and so distinct from the artifacts that they can be arranged to constitute, it is not clear in what sense these things may be said to have a specifically *internal* principle of motion and rest insofar as

¹⁵Hans Jonas observes that modern philosophy lacks altogether a genuine philosophy of nature; he appears to overlook Schelling's contribution, but the observation remains a striking one: see his *Philosophical Essays* (Englewood, N.J.: Prentice Hall, 1974), xii–xiii.

¹⁶Aristotle, *Physics* II.1.192b13–15.

¹⁷Aristotle, *De anima* I.3.407a30–35; I.4.408b15–20.

they in fact do *not* move themselves in an active sense. As Aristotle himself says later in the *Physics*, they have a principle, not of moving or producing, but of *suffering* movement (οὐ τοῦ κινεῖν οὐδὲ τοῦ ποιεῖν, ἀλλὰ τοῦ πάσχειν).¹⁸ We might say that the definition Aristotle offers of nature finds itself stretched at the two extremities in a non-trivial way; or perhaps in more technical language, Aristotle does not posit a single, univocal concept of nature that he then applies mechanically to the members of the class of natural beings. Instead, the differences among the beings called natural are such that they prompt us to reinterpret at each level the meaning of the unity of nature, sometimes in a quite basic way, but nevertheless without simply doing violence to that meaning and so to the unity.

a) *Simple bodies*

Let us reflect, then, on nature's manifest difference in unity as it comes to expression in the ontological constitution of things—specifically, in terms of the relation they present between form/matter, unity/difference, interiority/exteriority, and particularity/universality—and in how this constitution bears on their characteristic activity, i.e., their particular expression of motion and rest. We may begin by comparing the beings on Aristotle's list of natural things, and delve more deeply into human being, following some observations from Hegel.

There are first of all evidently different degrees of ontological complexity among these types of beings: simple beings, the natural elements, are of course homogenous by definition, which means that what they are as a “whole” is indistinguishable from the parts of the thing: every part of water is water.¹⁹ If the form repre-

¹⁸Aristotle, *Physics* VIII.4.255b30–31. Aristotle here is trying to explain how the motion of the elements can be essentially externally caused, and yet still remain distinguishable from violent motion—which requires him to qualify the distinction normally made between natural and violent as that between the internally generated and the externally imposed. On the meaning of motion in Aristotle in relation to his general metaphysics, see Simon Oliver, *Philosophy, God, and Motion* (New York: Routledge, 2005), 29–50.

¹⁹It may be objected that this observation has been rendered altogether obsolete by the discovery of the molecular structure of matter (and in turn the further “analyzability” of molecules, and so forth); in this case, water is evidently *not* homogenous, but can be broken down into the component parts of hydrogen and

sents the quality of a thing and the matter that out of which a thing is, or comes to be what it is, simple bodies seem to lack a significant distinction between form and matter. Their form is essentially their matter and their matter is their form. In this case, as the form does not significantly transcend the matter, the unity of a simple body does not significantly transcend the difference of its parts: every part of it is essentially the same. This is why it does not affect the being of water to be divided; no damage is done to water that is poured out into a number of cups. Hegel defined matter (i.e., the natural elements) as “externality,” though he said that one could just as well think of matter as exhibiting a pure immanence.²⁰ In another text,²¹ he characterized matter as possessing its center outside of itself, a characterization that echoes the scholastic description of material being as “*partes extra partes*.” There is no center to the “being” of elements, because each part is equally center; we thus have a complete immanence of form. At the same time, this means that the “being” of matter is “ex-centric,” that the form is in a sense externally divided from itself horizontally. This is why matter can qualify

oxygen. There are two responses to be given here. First of all, the point being made above is that there is a relative indistinction between form and matter in the “simple bodies,” not that there is an absolute identity between the two. The point allows room for further differentiation and qualification among the different classes of elements and compounds, homogeneous and heterogeneous matter. At the end of the essay, we will make a further comment about the sorts of material beings that are sufficiently complex that they immediately bear a certain analogy to organisms. Second, it is important to keep in mind that the atoms that constitute the elements do not *exist* except in a qualified sense: in fact, we can isolate them only in abstraction, and indeed in a certain respect only by doing a certain violence to matter. Atoms have their real being in the specific matter that they constitute. In other words, we have to avoid ascribing a univocal concept of being to both atoms and the natural elements that make up the world of experience. In this respect, Wolfgang Smith’s distinction between the physical (subatomic particles and the like, which Smith associates with the metaphysical principle of potency) and the corporeal (the bodies that represent objects of sense experience) is helpful: see chapters 2 and 3 of his *The Wisdom of Ancient Cosmology: Contemporary Science in Light of Tradition* (Oakton, Virg.: Foundation for Traditional Studies, 2003), 37–70. Smith’s observations echo, in contemporary language and concepts, a view championed by Goethe.

²⁰Hegel says that nature, at the level of the elements, “is precisely the merely internal, and for that reason also the merely external, connection of mutually independent existences” (*The Philosophy of Mind*, 381, *Zusatz*, trans. William Wallace [Oxford: Clarendon Press, 1971], 9).

²¹Hegel, *The Philosophy of History*, trans. J. Sibree (New York: Dover, 1956), 17.

as a substance (οὐσία) only in an analogous sense,²² since unity and the capacity to exist self-sufficiently, according to itself, is what defines Aristotelian being.²³

One of the implications of this relative indistinction between form and matter in the “simple bodies” is a curious dialectic between the particular and the universal. On the one hand, they collapse into each other since there is no real difference (beyond mere spatial and temporal location) between water here and water itself—water is water—and on the other hand there is an extrinsicism in this relation: because there is no intrinsic unity, a unity that would transcend and so gather the parts up into an integrated whole, we cannot speak of an “individual water” that possesses the nature of water; possession requires an interiority, a definite being (a “substance,” i.e., “οὐσία”), to which the nature would belong. It is just as true to think of water as being possessed *by* its nature. This “dialectic” between the material particularity of water and its formal universality casts an important light on the essential movement or behavior that characterizes simple bodies. It is often asked whether the simple bodies are “self-moving,” and there is quite a bit at stake in this question²⁴: if we say that they do move themselves, we seem to blur the distinction between inanimate and animate matter, and so fall into a universal vitalism. But to the extent that we lack this distinction we will be unable to avoid interpreting the evidence of mechanistic behavior in material being as a threat to the teleology that belongs to life simply, and so we will find it necessary to deny Newton’s first law of motion (the so-

²²This is the fundamental misunderstanding in Helen Lang’s otherwise excellent discussion of Aristotle’s natural philosophy: *The Order of Nature in Aristotle’s Physics: Place and the Elements* (Cambridge: Cambridge University Press, 1998). Though her text claims to be a treatment of Aristotle’s physics, and though she presents her approach precisely as a reaction to the tendency to interpret Aristotle anachronistically, through the lens of classical physics, Lang separates Aristotle’s discussions of the elements from his discussions of plants and animals, which she refers to as his “biology”—as opposed to his physics proper. She thus takes the elements to be the paradigm of substance, and then explains that all other things are substances to the extent that they are made up of the elements. What is lacking here is a properly analogical concept of substance. This is what leads Lang to give what may be described as an aggressively materialistic interpretation of Aristotle.

²³Aristotle, *Metaphysics* IV.2; VII.1–3; *Categories*, 5.

²⁴See the classic text by David Furley: “Self-Movers,” in *Self-Motion: From Aristotle to Newton*, ed. Mary Louise Gill and James G. Lennox (Princeton, N.J.: Princeton University Press, 1994), 3–14. See also Lang, 40–50, and Oliver, 35–41.

called “law of inertia”) in order to protect the integrity of the organism. On the other hand, if we say that the simple bodies are *not* “self-moving,” we would seem to take them out of the realm of nature altogether, since nature is defined as an “internal principle of motion and rest.”²⁵ In this case, we gain a distinction between life and inanimate matter only by forfeiting an essential distinction between nature and artifice. We end up conceding, in other words, the mechanism of the scientific revolution we mentioned at the outset, and all of its implications. If matter does not have an internal principle of motion, how are we to understand the relationship between living things and their material parts? Life in this case would have to be a kind of “energy” that lies outside of matter, but this means it would be able to interact with matter only in the form of an extrinsic force. To separate life from matter is paradoxically to reduce it to a material force.

So what, then, is the answer to the question, Are simple bodies self-moving? It seems to me that the answer is to point out that the question is improperly put: it implies that simple bodies have a “self” to which motion can be either ascribed or denied. The question, in other words, presupposes a univocal notion of being (and nature) that requires equal application indifferently to all the “beings” of nature: animals, plants, and elements. But our reflection on the relative indistinction of form and matter in the elements suggests, by contrast, that they have a relatively “abstract” kind of being, and this abstraction has implications for the nature of the order displayed in its characteristic behavior. It is sometimes said that modern thought is distinguished from ancient thought in that it conceives of physics as the conformity of “stuff” to mathematically

²⁵An alternative way of responding to the dilemma we are describing here is to insist that, while the verb that Aristotle uses to describe nature, “κινεῖσθαι” (see *Physics*, 192b22), can be read either as a middle voice (nature is an internal principle of *moving itself*) or as a passive voice (nature is an internal principle of *being moved*), the passive reading is more comprehensive, since it includes the elements, which Aristotle, as we saw above, explicitly says do *not* move themselves, but instead suffer movement (see Lang, 41). While this way of reading Aristotle is certainly not false, it threatens to dissolve the analogy: we would be led to think of the self-motion of animals as something *external* to their nature, the whole of which would be expressed in their *being moved*—in this case, by themselves. In other words, their active generation of movement would be accidental to their nature. The broader implication is that life would be removed from the center of nature, and replaced by the elements. The response we are proposing would resolve the dilemma without this consequence.

formalizable laws rather than as the variegated and qualitative activity that springs from the hierarchy of different natures—i.e., extrinsic order imposed from above vs. order that arises from the interplay of spontaneous, internal principles. But our analysis suggests that these two perspectives converge in an essential way, not for all physical being, but *solely at the level of the elements qua homogenous matter*. The behavior of earth or water, for example, can be conceived as conformity to a law, not because it is inert “stuff” being acted on wholly from without by external forces, but because the order of its nature lies “outside” of it. In other words, water is natural because it has an “internal principle of motion and rest,” but it is not living because, while the principle is internal to the nature of water, that nature is external to any particular instance of water. This is why elements can be said to *suffer* movement rather than *produce* it. This interpretation opens up room, it seems to me, for all of the external relations that characterize “mechanics,” but without breaking the analogy of nature and the centrality of life. A recognition of the specificity of elemental “being” allows us to distinguish it both from life and from artifice. How precisely the difference of inorganic matter is *good* is a question we will return to at the end.

b) Plants

A plant reveals greater complexity than the natural elements insofar as it has a certain differentiation of parts and therefore a unity that transcends them sufficiently as to be able to gather them up into an intelligible whole, a real being or substance. The parts, however, are not radically different from the plant itself—as Goethe observed in his morphological studies, the parts of a plant are a certain repetition of the whole.²⁶ This is why, on the one hand, a plant can lose many of its parts without fatal injury to its being (one can tear

²⁶“Researchers have been generally aware for some time that there is a hidden relationship among various external parts of the plant which develop one after the other and, as it were, one out of the other (e.g., leaves, calyx, corolla, and stamens); they have even investigated the details. The process by which one and the same organ appears in a variety of forms has been called *the metamorphosis of plants*” (Goethe, *The Collected Works*, vol. 12: *Scientific Studies*, trans. Douglas Miller [Princeton, N.J.: Princeton University Press, 1988], 76).

off a leaf), and also why in some cases with certain types of plant it is possible to break off a part and replant it. The part then generates an entirely new and independent whole, which reveals a certain “diffuse” existence of vegetable unity.

There is, here, an “internal” being, so that we can speak of an individual plant, and this interiority implies of course an exteriority that is different. While in the elements the center is identical to the parts, in plants the center is *not* in fact the same as the parts, but the difference does not have significant content beyond that fact. Plants are not mere externality, but their being is rather constituted by the simple difference between internal center and external parts. The essential movement of a plant, then, is, as it were, the spanning of this difference, the unfolding or manifestation of its being: it is proper to a plant to *grow*. But because the unity is only relatively different from its parts, the plant does not have a drive to move beyond the unfolding of its parts, and indeed it cannot reverse this movement (while a plant can die, it cannot “ungrow”²⁷). The relationship between the center and the parts is, thus, unilateral, the form moves outward to the extremities. Nature, which is expressed at the level of the elements as (extrinsic) form, begins to acquire the character of efficient causality to the extent that the defining form is internalized (though of course one could describe the same reality as the change from a purely immanent form to one that transcends the matter). The now “internal” possession of its (universal) nature by the (individual) natural being comes to expression in the phenomenon of reproduction. The individual plant exhibits “self-motion” in its growth; the species exhibits “self-motion” in the generation of new individuals. The self-motion in both cases belongs to the form, but the difference between these two is due to the fact that the form is not yet self-possessed. The relationship between the universal and the particular therefore remains extrinsic, which is evident in the fact that vegetable reproduction occurs outside of the plant and does not require the active involvement of the individual plant in the process. The acorn simply *falls* from the tree, even if it does not fall far.

c) Animals

²⁷This is not to deny that certain plant parts can “re-form” themselves under particular circumstances, and thus exhibit what Goethe calls “a backward step, reversing the order of growth” (*ibid.*).

With animals, we have a leap in both unity and difference. The parts of an animal are significantly different from one another; there is no mere repetition of the same. Indeed, we make a vital distinction between internal parts (the organs) and external parts. At the same time, however, the parts of an animal are more profoundly interdependent, so that the loss of any one can be quite damaging and even fatal. One can graft a plant part onto a plant, but one cannot do the same with animals. As a rule, animal parts do not grow back once lost, and they cannot be turned themselves into new organisms.²⁸ The unity of an animal, its “center,” is thus more radically interior to the organism than in the plant, which means that it transcends all of the parts in a more complete way than in a plant. Indeed, the unity of an animal transcends its different parts to such an extent that it not only, so to speak, pours itself out into the parts (growth), but at the same time relates the parts back to itself: this is sentient consciousness, the rudiments of a self. The form of the animal, its center, is thus extended into its outward parts, not simply in the unilateral movement of growth, but also without, so to speak, abandoning its interiority, and this is what transforms its external parts into organs of perception. The transcendence of the animal form, in short, is the cause both of its conscious self-hood and its capacity to feel.

But this “vertical” transcendence entails a horizontal transcendence. The unity of an animal spills out, as it were, beyond even its physical boundaries. Above we saw that the internalizing, the gradual self-appropriation, of form turns what is at the lowest level the imposition of order in the manner of formal necessity (what comes to be called the laws of nature) by degrees into the efficient causality of motion. In a plant, the movement arises from the center; now, at the level of the animal, the individual being moves itself according to its center, it actively generates its acts from itself. The transcendence of the animal’s unity thus accounts for its locomotion. It can move to a new place beyond the place it stands at present because its reality exceeds its physical being and therefore its location in space. According to Hegel, the excess of an animal’s unity beyond its physical boundaries entails a contradiction, insofar as the animal becomes thereby *more* than what it is: it both *is* and *is not* the world beyond itself at the same time. We will consider an

²⁸Cloning is only apparently an objection to this claim; whatever else cloning is, one thing it is *not* is the generation of a new whole out of a simple part.

alternative interpretation of the ecstatic character of animal being in a moment, but Hegel's account of this state of affairs is illuminating. The need to resolve the contradiction that constitutes the being of the animal entails the two activities that Aristotle says make up the life of the animal: feeding and procreation.²⁹ On the one hand, the animal attempts to overcome the externality of matter that confronts it as both itself and not itself in a particular way: by consuming it. Here we have a philosophical explanation of the essential connection between locomotion and appetite, for which Aristotle offers a more practical explanation. Indeed, Hegel expands this point to account also for the phenomenon of sexuality. Consumption does not resolve the contradiction of the animal because the elimination of the otherness of the matter *qua* food reinforces the self of the animal, and so simply posits the contradiction anew and indeed more forcefully. Here, then, arises the second way the transcendence of the animal's unity gets manifest: in the sexual relation, the animal resolves its ontological contradiction by means of a unity with an externally other that is nevertheless the *same*. This union, however, is essentially a *physical* one, a matter of sensible appetite, which finds its terminus, as Aristotle says, outside of the soul.³⁰ The animal has a sensible awareness of the union, but cannot be said to "know" it, which means the union is achieved only outside the animal's soul and not also properly inside it. The relation between the universal (the species), to which this union therefore belongs, and the individual animals that unite in this case remains extrinsic. There is a true sense in which we could say that the species makes use of the individuals to propagate itself.

d) Man

When we move to the human being, we enter into a radically different order in this regard. There is a sense in which life, presented in the difference between animals and plants, represents the paradigm of nature, i.e., the internal principle of motion and rest; it establishes the "base-line" meaning of the notion (though, of course, not in a univocal way). But if vegetable and animal being represent the essence of nature, the spiritual life of man *exceeds* that, and yet

²⁹Aristotle, *History of animals*, VIII.1.

³⁰Aristotle, *De anima* II.5.417b20ff.

it does so in a manner that turns out to bring life to a higher and perhaps unexpected fulfillment. (The neoplatonic triad distinguishes intellect from life, but then again Aristotle identifies thought as a kind of living,³¹ and indeed self-thinking thought as perfect life.³²) How does this work? The unity of human being betrays first of all a transcendence of a qualitatively different sort. The form of man is so transcendent, we could say, that it not only lies beyond the organic parts of his being so as to be able to gather them up into a conscious self, like an animal, but it also lies beyond *itself* so as to be able to grasp even its own grasping: the human being is not merely conscious, but is *self-conscious*; the human being can meaningfully say “I.”³³ The radical kind of interiority that self-consciousness implies is required for a being to possess its nature rather than simply being possessed by it. Nature, we recall, is an internal principle of motion and rest; but nature remains extrinsic to itself at the level of the natural elements and is only gradually internalized up the chain of being. It is only at the level of man that the internal principle truly becomes internal *to itself*. This is why human beings have a special dignity; every “I” is not only an individual, but at the very same time is universal.³⁴ We talk of a person’s *humanity*, and we do so as if it

³¹Aristotle, *De anima* II.2.

³²Aristotle, *Metaphysics* XII.7.

³³It may be said that the dialectic that grew from Kant’s notion of the transcendental unity of apperception to form the heart of German Idealism, namely, the objectification of subjectivity that occurs in reflective self-consciousness and must be overcome, fails to see the radical nature of the transcendence at issue here. It is of an altogether different order than the “speculative” (from *speculare, speculum*) split into subject and object. At the same time, because of the transcendence, the self-consciousness of the “I” does not have to be *opposed* to all reflexivity and relation and the otherness this implies, such as seems to be the case in the pure immediacy of radical immanence in Michel Henry’s notion of self-affection. On this, see Dan Zahavi, “Subjectivity and Immanence in Michel Henry,” in *Subjectivity and Transcendence* (Tübingen: Mohr Siebeck, 2007), 133–48.

³⁴Hegel seems to ascribe universality to the “I” in a merely extensive sense: “When we say ‘I,’ we mean, to be sure, an individual; but since everyone is ‘I,’ when we say ‘I,’ we only say something quite universal” (*Philosophy of Mind*, 11). But we mean the coincidence of individuality and universality in a more directly ontological sense: the “I” is the perfection of the natural form’s self-possession, and so a complete coincidence of individual being and universal nature. This does not mean that each human being is its own species, as Aquinas says of the angels, who lack matter altogether, but only that, in the human being, the species grasps itself as universal.

were a characteristic he possessed, something that belongs to him. But we do not talk about a cat's "felinity" except when we are trying to lighten the mood in a philosophy class.

The scholastics understood the intellect that represents the specificity of the human soul as a *reditio completa*, a movement that returns perfectly back to itself³⁵ (and therefore is necessarily *not* a motion, which Aristotle defines as the actuality of potency *as* potency and so as essentially "incomplete."³⁶ This is why materialistic cognitional theory will always and inevitably be a chasing after wild geese.) Interpreted according to an analogical concept of nature, the *reditio completa* shows itself to be the completion of the self-appropriation of form that *defines* nature simply. This is why man's understanding of himself brings insight into the nature of nature. Such an interpretation also allows us to see that the efficient causality that represents an essential aspect of human freedom is not arbitrary spontaneity but rather the perfection of formal causality. The human being can be an *author* of action precisely because the center from which his acts proceed is a self-possessed unity. In this case, freedom is not a "subjective" power that *acts on* the outside, "objective" world. Rather, it is a further extension of internal unity: while the unity of an animal is present, so to speak, as far as its skin, which is what makes it sentient, beyond its skin, as we saw above, the animal can only "feel" the other that therefore remains external to it. But the human being can be present as a unity even in his external acts, which is why this self-transcendence in action continues to "belong" to the person, and we can call what he does genuine acts of self-expression.

Because of this transcendent unity, a human being is capable of course both of growth and locomotion, but at the same time he has the capacity for a much more profound encounter with otherness. As Hegel observed, an animal's excessive unity causes a kind of restlessness that leads it to seek satisfaction in something outside of

³⁵To say that the human spirit is constituted by a perfect "redition" is an ontological claim, and does not imply that every human being is perfectly transparent to himself, or in possession of perfect self-knowledge. The failure to make this distinction accounts for much of the confusion in postmodern thought that takes classical philosophy to be founded on self-presence. The ontological structure of spirit as a *reditio completa* is in fact necessarily implied even in the claim that human beings always *lack* self-knowledge. It is not meaningful, for example, to complain of the absence of self-knowledge in a table.

³⁶See Aristotle, *Physics* VIII.5.257b5–10.

itself, first food and ultimately a mate. The restlessness is due to a unity that spans the difference between the individual and the species (this is the essence of the Aristotelian form³⁷). With the human being, however, the individual self-consciously possesses human nature, the universal, and so is capable of a more contemplative relationship toward the otherness of the world. The form of man, the rational soul, is not just one form among many (as with, for example, the other animal and plant souls) but is a form of forms: the soul is πάντα πῶς, in a certain sense all things.³⁸ It can thus internalize the “other,” the things in the world that are different from itself, both without destroying those things (i.e., consuming them and so reducing them to oneself), and also, so to speak, without leaving itself (i.e., in the self-transcending movement of sensible appetite). The human being can achieve an ontological intimacy with things without having physically to cross a distance to make contact with them. This represents a transformation of the meaning of nature, once again: it is an internal principle that is capable, because of its excessive interiority and so self-transcendence, of including motion so to speak within its encompassing rest.

It bears remarking, at the end of this brief sketch of the analogy of nature, that the differences between the various “levels of being” are not to be interpreted *nominalistically*, i.e., non-analogically. A nominalistic interpretation would see the differences as defining separate classes of things, and would thus be embarrassed whenever a defining trait appeared in some class other than the one it supposedly defines. For example, to the extent that one finds evidence of intelligence in the animal world one is unable to claim intelligence as a defining property of human being. But if we take the differences in a *non-nominalistic* fashion, then we expect a certain “porosity”—to use William Desmond’s fertile term—among the different classes. The differences that constitute the various levels of being we have been discussing are not separate properties, but different ways of possessing, participating in, one and the same nature. As such, the properties are not possessed exclusively by one class in opposition to the others, but—if we may put it thus—

³⁷The classic discussion of this paradoxical feature of Aristotelian form is Joseph Owens, *The Doctrine of Being in the Aristotelian Metaphysics*, 3rd ed. (Toronto: Pontifical Institute of Medieval Studies, 1978), chapter 13, 379–400.

³⁸Aristotle, *De anima* III.8.

possessed by each on behalf of them all.³⁹ In this case, similarities abound throughout the spectrum, without this fact disturbing the distinctiveness of the levels of being: we have not only the recapitulation of the lower by the higher, but also a certain anticipatory participation in the higher by the lower. Animals display genuine traces of intelligence, for example, not because intelligence is not a trait that defines human being, but because, by virtue of the ontological unity of nature, animals are in some real way “like” man. Because of this non-reductive “porosity” of boundaries, due to the transcendence of the unity of “types” and the ontological oneness of the cosmos, there will always be an abundant variety of expressions at each level of nature, which underscores the unity of the whole. Nature is so thoroughly analogous that even the individual levels of nature show forth an analogical structure: some plants, for example, will behave like animals in a certain respect, others like the elements in a certain respect, all without surrendering their “plantness,” and so forth. We will return to this important point at the end.

III. *The goodness of matter and the natura analogiae*

At the “top” of the analogy of nature we described in the previous section lay the universality of the human spirit.⁴⁰ It is interesting that Hegel, after contrasting this comprehensive and so concrete aspect of spirit to the abstractness of matter,⁴¹ passes directly from this contemplative union of the soul with all things in principle to man’s coming to know God—a movement from finite to infinite spirit—and thus passes over the relation between the individual and the universal that comes to expression in human community.⁴² While the relation between the individual and the

³⁹We might compare this “distribution” of qualities in nature to the “appropriation” of properties in God: we attribute power most properly to the Father, and gift most properly to the Spirit, etc., even though in fact these properties are shared by all the divine persons by virtue of the absolute simplicity of God’s nature. Each person possesses his properties *for* the others, as it were.

⁴⁰This sketch does not necessarily exclude the “separate intelligences,” the angels, but of course as transcending the physical world altogether they belong in a much more distant way to nature.

⁴¹Hegel, *Philosophy of Mind*, 11–12.

⁴²This leap in Hegel’s description at this point is discussed at greater length, with an attempt to “fill it in” on the basis of Hegel’s own principles, in a chapter from

species at the animal level finds its consummation quite literally in the union of the sexes, for Hegel one could say that every human being is already in himself the unity of the individual and the universal insofar as he is spirit. The dignity of spirit, for Hegel, lies in what he calls its “triumph over externality.”⁴³ If matter has its center outside of itself, spirit finally has its center wholly *within*. Hegel’s description of spirit as the culmination of the natural world, which passes beyond nature, reveals that he conceives of the analogy of nature in a strictly unilateral fashion, wherein the inorganic represents a lower level of the organic, and the organic, in turn, reveals itself to be a lower level of spirit. Progress thus occurs as an intensification of interiority, the gradual widening of the scope of unity. But as we suggested above, this conception misses an essential aspect of analogy, namely, the positivity of difference. What “positivity” means specifically here is that the lower level not only reflects the higher at a diminished grade, but that, at the same time, it *adds* something to the higher and so contributes something genuine to the meaning of nature. Thus, while it is clearly true that, in the hierarchy of being presented by analogy, the higher reveals the meaning of the lower, it is *also* true that the lower reveals something essential about the higher. There must be a reciprocity in addition to hierarchical asymmetry in genuine analogy.

So, what in the present case does the “lower” add? We come here to the question in the title of our essay. As we saw above, what characterizes the mechanical relations of simple bodies is externality, parts outside of parts. But to speak of externality in this context is to say that difference exceeds unity. Now, while there is clearly an imperfection in externality so expressed, which justifies our thinking of simple bodies as a base kind of being, if we were to include inorganic matter as at the same time an expression of nature precisely *in* its inorganicity and so precisely in its irreducible distinction from life—in contrast, we recall, to the tendency in Schelling to include matter in nature only to the extent that and the degree to which it bears some relationship to life—we affirm that what is unique about it is indispensable to our understanding of the whole. In this case, it is the relative subordination of unity to difference that specifies the inorganic, which we may perhaps describe as a kind of

my as yet unpublished book, *The Perfection of Freedom in Schiller, Schelling, and Hegel: Germans Between the Ancients and the Moderns*.

⁴³Hegel, *Philosophy of Mind*, 10.

“heteronomy”: the elements are wholly subject to their nature, which they do not possess in an internal way. Affirming the goodness of the mechanical qualities of the inorganic brings to light the fact that the integration of unity and difference at higher levels of being does not mean that the achievement consists *merely* in the unifying of greater and greater spheres of difference but at the very same time in the increasing differentiation of unity. Rather than describing the hierarchy of nature simply as a gradual “triumph over externality,” a properly *analogical* concept of nature allows us to see the integration of unity and difference instead as a mutual submission of each to the other. More concretely, we might say that positing the lifeless elements as an indispensable expression of the meaning of nature reveals at least two things⁴⁴: first, that having one’s center outside of oneself—i.e., ecstatic being—is something positive; and second, that it is good not only to possess one’s nature, but also to be *possessed* by one’s nature. This twofold revelation allows us to offer a different interpretation, for example, of sexual union from that of Hegel. For Hegel, this union is the resolution of the contradiction of animal being: sex accomplishes what eating does not, because the other that the animal internalizes remains other even in its sameness. But this view threatens to make sex simply a higher form of consumption. And such a view shows why this union can simply be surpassed, for Hegel, by the *knowledge* relation that constitutes the highest life of spirit. By contrast, if we affirm externality as a positive expression of nature, then we see the goodness of sexual union not merely in the fact that difference has been overcome by unity but at the same time in the fact that unity is thereby extended, brought beyond itself. In this case, what is good in sexual union is never simply surpassed in the transcendence toward spirit, just as the goodness of matter and its mechanistic properties is never simply surpassed in the transcendence toward life.

There are some immediate implications of this analogical concept of nature for our understanding of human existence, which we have space here only to list. Most obviously, we come to see that the unity of the universal and particular in the soul of man, the form

⁴⁴These are of course not the only two. It would also be quite fruitful to reflect on the significance for the whole of the temporality and spatiality that characterizes matter: according to Aristotle, the defining quality of matter is belonging to a particular place (earth below, fire above, and so forth). One might think of the importance of place and history in human existence as due in a particular way to our material being.

of forms, which Hegel describes as the “triumph over externality,” shows itself to be only half of the picture, so to speak.⁴⁵ Sexual union represents the converse reconciliation of the individual to the common. Indeed, at the human level, sexual union becomes *marriage* and *family*, which is not only a physical coming together (a union of necessity only temporary and periodic), but a spiritual/bodily union that involves—to invoke the language that John Paul II made famous—a “gift of self” through the permanent commitment of freedom. Such a view depends on the meaning of freedom we sketched above, but highlights not the fact that the outward act remains within the unity of the self, but that the unity comes to expression even here, outside the self. The truth of marriage is a dual unity: a person not only takes the other to himself, but he henceforward also *belongs to* the other, who remains a spirit forever irreducible to his own. Indeed, the union of persons in marriage, far from reducing difference, is fruitful of further persons. As a paradigm of love, this is a heteronomy without alienation. In love, as Ferdinand Ulrich once said, one has one’s center outside of oneself, which is of course a recapitulation at a higher level of the distinctive being of matter.

Second, a unilateral interpretation of nature could lead one to understand the ascent of the hierarchy of being as a progressively complete possession of nature that reaches a perfection in man’s self-consciousness. In this case, man would represent pure mastery over his own nature. What the externality of mechanism shows is that, as we saw above, it is good not only to possess one’s nature but also *to be possessed by it*. We might suggest that the “allergy” (from *aliud*, “other”) to heteronomy that one finds in the Enlightenment (quite thematically in Rousseau and then in Kant) is the result of a loss of analogy. If human being represents the internalizing of nature, perhaps we ought to say that it is also by the very same token his internalizing *by* nature, which is to say that in the human being nature becomes internal to itself. Human being in this regard represents a kind of perfection of subjectivity *and* a perfection of

⁴⁵And of course the half that it shows is also significantly altered: in light of the analogical conception of nature, we are led to interpret the unity of knowledge not simply as an appropriation of the truth of things into oneself but at the same time as a kind of ecstasis by which one joins oneself to the things known. For a sketch of what this sort of knowledge might look like, see my “Towards a Non-Possessive Concept of Knowledge: On the Relation Between Reason and Love in Aquinas and Balthasar,” *Modern Theology* 22, no. 4 (October 2006): 577–607.

objectivity; thus conceived, we have an ontological ground for the inviolability of human dignity, a fundamental respect for the very nature we possess in ourselves, that does not rely on a dualistic separation of man from nature (such as we find in many, if not most, personalistic philosophies). And we also have an ontological ground for the study of nature *in light of* human existence.⁴⁶

Finally, insofar as it valorizes difference, and not simply as a function of unity, the analogy of nature provides a positive ground for limit, and so for the unsurpassable goodness of the finitude of human existence. It is revealing that Hegel has no place, ultimately, for non-infinite spirit; the very meaning of spirit is the infinite that reconciles finitude to itself. One of the most fruitful aspects of Hegel's thought is that he brings to light the necessity of the finite for the infinite. But it is precisely a necessity rather than a generously conceived *good*. The finite is necessary to the absolute, i.e., good *for* the infinite, in Hegel's understanding, rather than being good simply, in and for itself *qua* finite. Only an analogy of nature that has room for the inanimate character of matter will be able to accommodate the abiding finitude of the human being.

This last point brings us to our conclusion: though there is no space here to show how it is so exactly, our final reflections suggest that, in the end, there cannot be a "beyond" without at the same time an "outside." In the created world at the very least, transcendence and externality share a common fate. Both of these dimensions are necessary to a properly analogical concept of nature. It is not an accident that Schelling both conceives of the inorganic as a lower degree of life and that he comes to identify God (in his middle period) with nature,⁴⁷ while Hegel, unsatisfied with an organic dynamism, collapses nature into spirit and man into God.⁴⁸ The externality of matter is a resistance to such a collapse, it is the "physical presence" of discontinuity within the continuity of life,

⁴⁶See, for example, Robert Spaemann, "Wirklichkeit als Anthropomorphismus," in *Grundvollzüge der Person: Dimensionen des Menschseins bei Robert Spaemann*, ed. H.-G. Nissing (Munich: Institut zur Förderung der Glaubenslehre, 2008), 13–35.

⁴⁷In his 1804 work *On the System of Philosophy in General and the Philosophy of Nature in Particular*, Schelling describes the universe as God's self-affirmation, and denies that God is the *cause* of the universe, arguing instead that he *is* the universe, understood in a particular way.

⁴⁸See William Desmond, *Hegel's God: A Counterfeit Double* (Burlington, Vt.: Ashgate Publishers, 2003).

which then dramatically anticipates and prefigures the discontinuity of spirit's transcendence of life. But this reveals that the model for analogy is not a pyramid, a simple ascent toward the ever more perfect; instead, the model is a formal meaning that gets dramatically interrupted by a reality that both transforms and fulfills it. Analogy, so it seems, is essentially *cruciform*. Thus conceived the analogy allows for the various reversals that receive such profound significance in the Christian tradition.

* * *

The dramatic nature of analogy that has emerged through our reflections allows us, at the end, to give a nuanced response to the question of the relationship of “external” matter to the inwardness of life. Is there no sense in which we might say that even inorganic matter shares in the properties of life? Is it simply “metaphor,” in the conventional sense of *fiction*, of poetic imposition, to describe a stone statue as *living* or to perceive in a magnified droplet of water a perfection of shape, which, as it gathers up and reflects an infinity of light, evokes the internal unity of an organism? There are two responses to make here. In the first place, the “porosity” of real boundaries we spoke of above allows us to affirm a genuine sharing of properties, so that just as animals display in a true way characteristics that belong properly to human beings—for example, the capacity to play or to communicate their inward states⁴⁹—so too may elements display in their own way what belongs properly to organisms. Indeed, as we suggested above, there is an analogy even within the various levels of being: if earth is matter in a paradigmatic sense, then we might say that fire represents matter in a more living form. The higher form, even here, brings out a dimension of the lower form without rendering the lower form superfluous. The important thing is to avoid claiming without due qualification that life is the *essence* of matter, in a manner that would deprive matter of its own essence, and so of the positivity of the difference that gives matter its proper place in the cosmos.

And this leads to the second point: maintaining the proper essence of inorganic matter as distinct from the organic is what allows us to see the elevation of matter in art, or in the bodies of

⁴⁹See Adolf Portmann, *Animal Forms and Patterns* (New York: Schocken Books, 1967), 196–201.

living beings, as a kind of *grace*. The organic unity and dynamic life of a beautifully constructed space, the transparency of matter to spirit in a joyful human face, is something of a miracle, in the sense that it has an “event”-like character, and it radiates a certain gratuity. This of course does not make the elevation an alienating imposition precisely because of the unity of nature expressed in analogy. In this we have a prefiguration of the transformation of nature by grace: grace, as the Church affirms, is not the opposite of nature that threatens to eclipse or destroy it. Rather, grace both presupposes nature and brings it to a higher perfection, a more complete state of naturalness beyond what it could achieve by itself. In this respect, the very ecstatic quality that material being contributes to the meaning of life, it also receives back from life in a surprising, but fulfilling way. And all of this belongs to the profound exchange of being that constitutes the analogy of nature, which thus reveals the whole cosmos to be suffused with the meaning of gift, a creatively reverberating echo of the original gift at its source. It is this wondrous exchange that represents the adequate response to the challenge of the scientific revolution.⁵⁰ □

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